

**REMARKS**

Claims 1-13 are pending in this application.

**Conclusion**

Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael K. Mutter (Reg. No. 29,680 ) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By   
f. Michael K. Mutter  
Registration No.: 29,680  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Rd  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant

MKM/clb

#### ABSTRACT OF THE DISCLOSURE

A method of generating a check matrix for an LDPC code includes determining a coding rate, generating a basic matrix that satisfies predetermined conditions, determining a number of columns of a check matrix, substituting rows of the basic matrix based on a specific relational equation, provisionally searching an ensemble of weights by executing Gaussian approximation, deleting rows of the basic matrix after the permutation in order from the bottom by considering the number of rows after a division, searching an optimal ensemble of weights by executing Gaussian approximation based on a predetermined condition after row deletion, and dividing at random the weights of the basic matrix after the row deletion based on the optimal ensemble.